Theme Area: Environmental Resources

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Project Title: Constructed Wetlands and Wetland Ecology

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Abstract: Wetlands and riparian areas serve as a critical link in watersheds and aquatic ecosystems by the maintenance of water quality, quantity, and wildlife habitat. Approximately 50 percent of the natural wetlands in the U.S. have been lost. Losses approach 90 percent in some areas of the west. The function and values of wetlands and riparian areas must be clearly understood in order to properly design constructed wetlands for water quality improvements, waterfowl and wildlife habitat, and for water project mitigation. Wetlands are being restored and constructed in various climatic and topographic regions for storm water control, water quality improvement, and for habitat. These sites offer excellent opportunities for monitoring, experimentation, and understanding these functions and values. Evaluation and understanding of both natural and constructed wetlands in various geographical locations having differing climates and predominant vegetation are important in developing design parameters necessary for local needs. Restored or constructed wetlands, particularly for the combined purposes of wastewater quality improvement and for local wildlife habitat development, are showing exceptional promise for water reuse and conservation throughout the west and particularly in the arid southwest.

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